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RE: Application No. 10/602,254  
 In re application of: Travis D. Fox, et al.  
 Assignee: SEAGATE TECHNOLOGY LLC  
 Dkt. No.: STL11083

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PATENT  
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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Travis D. Fox, Edwin S. Olds, Mark A. Gaertner and Abbas Ali**  
 Assignee: **SEAGATE TECHNOLOGY LLC**  
 Application No.: **10/602,254** Group No.: **2185**  
 Filed: **June 23, 2003** Examiner: **H. C. Kim**  
 For: **TRANSFERRING SPECULATIVE DATA IN LIEU OF REQUESTED DATA IN A DATA TRANSFER OPERATION**

**Mail Stop Appeal Briefs – Patents**  
**Commissioner for Patents**  
**P.O. Box 1450**  
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## ATTENTION: Board of Patent Appeals and Interferences

TRANSMITTAL OF REPLY BRIEF  
(PATENT APPLICATION—37 C.F.R. § 41.41)

Transmitted herewith, is the REPLY BRIEF in this application, filed in response to the Examiner's Answer mailed February 23, 2007. The REPLY BRIEF is being filed within two months of the mailing date of the Examiner's Answer as provided in 37 CFR § 41.41.

Applicant believes that no fees are due with the filing of this REPLY BRIEF. However, if any fees are due, the Office is authorized to charge Deposit Account No. 06-0540 for such fee.

Date: 4/23/07

Respectfully submitted,

  
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## CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a)

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Date: February 21, 2006

Diana C. Anderson

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Transmittal of Appeal Brief—page 1

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PATENT  
Dkt. STL11083

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Travis D. Fox, Edwin S. Olds, Mark A. Gaertner and  
Abbas Ali**Assignee: **Seagate Technology LLC**Application No.: **10/602,254** Group Art Unit: **2185**Filed: **June 23, 2003** Examiner: **H.C. KIM**For: **TRANSFERRING SPECULATIVE DATA IN LIEU OF REQUESTED  
DATA IN A DATA TRANSFER OPERATION**

Mail Stop Appeal Brief - Patents  
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ATTENTION: Board of Patent Appeals and Interferences

## APPELLANT'S REPLY BRIEF (37 C.F.R. §41.41)

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RECEIVED  
CENTRAL FAX CENTER**APPELLANT'S REPLY BRIEF**

APR 23 2007

**A. INTRODUCTION**

This Reply Brief ("brief") is provided in response to the Examiner's Answer February 23, 2007 to clarify the Applicant's position on remaining issues relating to the appeal.

**B. STATUS OF GROUNDS REMAINING ON APPEAL**

The Applicant gratefully acknowledges the withdrawal by the Examiner of the rejection of claims 1-13 and 25-28 under 35 U.S.C. §112, first paragraph for failure to meet the written description requirement, and the withdrawal by the Examiner of the rejection of claim 21 under 35 U.S.C. §103(a) as being obvious over U.S. Published Patent Application No. 2002/0052985 to Furuumi et al. ("Furuumi '985") in view of the reference text by Jim Handy entitled, "*The Cache Memory Book*" (the "Handy Text").

The following grounds of rejection remain on appeal for consideration by the Board:

1. The final rejection of claims 1-13 and 21-28 under 35 U.S.C. §102(e) as being anticipated by U.S. Published Patent Application No. 2003/0105919 to Olds et al. ("Olds '919"); and
  
2. The final rejection of independent claims 1 and 25 under 35 U.S.C. §103(a) as being obvious over Furuumi '985 in view of the Handy Text.

### C. ARGUMENTS

I. The Examiner's construction of the claim term "execution" in independent claims 1 and 25 does not fall within the scope of the "broadest reasonable interpretation consistent with the specification."

As the Board will appreciate, during examination claims are given their "broadest reasonable interpretation consistent with the specification." *Phillips v. AWH Corp.*, 75 USPQ2d 1321 (Fed. Cir. 2005)(*en banc*); MPEP 2111. The "broadest reasonable interpretation" is the meaning that the skilled artisan would give to the claim term in view of the associated usage provided the specification. *In re American Academy of Science Technical Center*, 70 USPQ2d 1827 (Fed. Cir. 2004); *In re Cortright*, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999); *In re Morris*, 44 USPQ2d 1023 (Fed. Cir. 1997). A construction that is inconsistent with the written description would not be arrived at by the skilled artisan, and is therefore not a "reasonable interpretation." *Phillips, Supra; Morris, Supra; In re Zletz*, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

The Examiner has stated that he is entitled to consider the initiation of a seek as forming a part of the "*execution of a second data transfer command*," as recited by claims 1 and 25. More specifically, in his Answer the Examiner stated, "[s]ince the seek cannot be executed without a proper command input, it is the examiner's position that the seek is part of the command." Examiner's Answer, p. 11, lines 6-7 (emphasis added). The Applicant reiterates that this is an improper construction of the term "execution" as set forth in claims 1 and 25. See Appeal Brief, p. 13.

The written description of the present application explicitly distinguishes between the execution of a data transfer command and a preceding seek operation necessary to prepare the system to execute the command. As previously stated previously by the Applicant, the written description includes the following:

*"Access time is an amount of time between completion of an execution of a[n] access command and a subsequent execution of a next scheduled access command or execution of an access command of interest. Access time includes a seek time (which includes head settle time), set-up time and a latency period." Specification, page 7, lines 3-7 (emphasis added)*

According to the foregoing excerpt, "access time" is defined as occurring between the execution of a previous access (data transfer) command and the execution of the next command. The "access time" is described as including a "seek time" necessary to prepare the system to execute the next command. The written description therefore explicitly distinguishes a seek from the execution of the next command, and does not include the former in the latter.

The written description continues at page 7, lines 8-17 to describe each of the foregoing components of the "access time" (i.e., seek time, set-up time and latency period) as occurring prior to the execution of the next scheduled command. For example, the written description states:

*Seek time is the time taken to move the read/write head 114 to the data track 120 associated with the access command of interest along with the time for the 114 to stabilize relative to the data track 120 and be ready to perform a data exchange operation (either a read or a write). Specification, page 7, lines 8-11 (emphasis added)*

This excerpt shows that the seek is carried out in order to enable the system to be ready to perform a data exchange operation, which is the next scheduled command. Specification, page 7, lines 8-11 ("...*execution of the data exchange operation, i.e., execution of the access command of interest.*"")

The skilled artisan would readily understand that if the seek prepares the system to execute the next command, then the seek occurs prior to, and cannot be included as part of, the execution of that command.

The Examiner, however, argues that since a command input must have been issued in order to carry out the seek, this must be included in the recited "second data transfer command." This is without merit. The fact that some sort of servo command may be issued in order to carry out a seek prior to the execution of a data transfer command does not somehow cause that servo command to become a part of the recited "second data transfer command," particularly when the written description explicitly states otherwise.

Accordingly, the Examiner's construction of the claim phrase "*execution of a second data transfer command*" to include a preceding seek operation is wholly inconsistent with both the written description and the understanding of the skilled artisan, and is therefore not within the scope of the "broadest reasonable interpretation consistent with the specification." Reversal of the anticipation rejection of independent claims 1 and 25, and for the claims depending therefrom, are respectfully solicited on this basis.

**II. The Examiner still has not shown how Olds '919 discloses the "transferring speculative data" step of claim 21.**

The Examiner's Answer argues for the sustained rejection of claim 21 by relying on various lengthy excerpts from paras [0007]-[0009] of Olds '919. See Examiner's Answer, p. 13, line 1 to page 14, line 9. The deficiencies associated with the anticipation rejection of claim 21 are discussed in detail in the Appeal Brief at pages 18-19, and these arguments will not be repeated here.

At this point the Applicant will merely focus on the claim term "*instead*." Claim 21 generally features "*transferring speculative data instead of second data associated with a second pending command during a next available latency period for the second command*." The word "*instead*" does not explicitly appear in the specification as originally filed, but the term "*skipping*" does, such as at page 9, lines 1-7 where the application states, "*expanding speculative data beyond the latency period of the next queued command necessitates skipping the NBDC [next best data command].*"

The skilled artisan would accordingly view the claim language "*transferring speculative data instead of second data*" to mean that the speculative data are transferred instead of, or in lieu of, the second data, as consistently set forth by the written description. See *Phillips, Supra*.

In the Examiner's Answer, the Examiner identifies the "target data block" of Olds '919 at para [0009], line 11 as corresponding to the recited "second data" of claim 21. See Answer, p. 13, lines 8-9. The target data block is described in this section of Olds '919 as

being far away from the head, and therefore speculative data are obtained in the meantime before the target data block physically rotates around to the head.

One having skill in the art would know that there is zero possibility of recovering the target data block in the system of Olds '919 any sooner than until it actually rotates around to a position where it can be accessed. The skilled artisan would also immediately understand that Olds '919 gathers speculative data in the period of time up until the target data finally become available. No overlap occurs, and so the "instead" language cannot be met by the Olds '919 reference. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

In view of the foregoing deficiency, as well as in view of the other deficiencies of the rejection previously set forth in the Appeal Brief, a *prima facie* case of anticipation of claim 21 has not been made. Reversal of the anticipation rejection of claim 21 and for the claims depending therefrom are respectfully requested.

**III. The final rejection of the claims included an alternative theory that relied upon an interpretation of FIGS. 4-6 of Olds '919 by the Examiner**

In the Examiner's Answer, the Examiner notes a discrepancy between certain arguments set forth in the Appeal Brief and the bases for the final rejections of the claims. More specifically, the Examiner states that he "did not rely on Figs. 4-6 of Olds '919 in the final Office Action mailed out on 12/15/2005, rather the examiner relied upon paragraphs (blocks) [0006] to [0010]."

The foregoing statement by the Examiner appears to be factually correct, inasmuch as the final Office Action does not specifically rely on FIGS. 4-6 of Olds '919. However, this does not accurately reflect the entire record, and therefore fails to identify the reasons why the Applicant included the above arguments in the Appeal Brief.

As clearly stated by the Applicant, it was in the Advisory Action mailed February 28, 2006 where the Examiner for the first time provided an alternative basis as to why Olds '919 was viewed as anticipating the claims. See Appeal Brief, page 14, line 21 to page 15, line 9. In this Advisory Action, the Examiner stated, "*Also FIGS. 4-6 in Olds reference show different drive operations without any scale on X-axis and also it appears that beginning of DATA2 transfer time in each operation is not started at the same time.*" Advisory Action, p. 2, lines 6-7.

The deficiencies of this alternative basis for rejection were pointed out to the Examiner by the Applicant in a Pre-Appeal Brief Request for Review. See Accompanying Arguments for Pre-Appeal Brief Request for Review filed April 17, 2006, pp. 3-4. The reviewing Panel sustained the final rejection without comment. See Notice of Panel Decision mailed August 9, 2006, p. 2.

It was therefore reasonable for the Applicant to consider this alternative basis advanced by the Examiner as being "still in play," and to include arguments in the Appeal Brief concerning the same.

The Applicant expresses gratitude that the Examiner has withdrawn this alternative basis for the anticipation rejection. However, the Applicant respectfully submits it would have been clearer for the Board had the Examiner identified these arguments by the

Applicant as having been found persuasive, rather than to suggest by implication that the Applicant has advanced arguments that were not necessitated by the record.

Accordingly, while the Examiner's Answer appears to indicate that the Board need not review the arguments presented by the Applicant in the Appeal Brief at pp. 14-17, the Applicant believes such arguments are instructive regarding the patentability of the claims, and requests that the Board review the same and draw any reasonable conclusions that it may deem appropriate therefrom.

**IV. Nothing in the Examiner's Answer addresses the deficiencies of the §103(a) rejection pointed out by the Applicant in the Appeal Brief.**

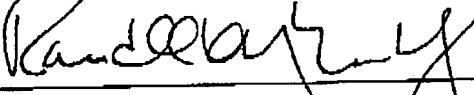
The §103(a) rejection of claims 1 and 25 is discussed at length in the Appeal Brief at pp. 20-23, and so these arguments will not be repeated here. However, the Applicant maintains that all of the limitations of claims 1 and 25 are still not actually taught or suggested by the Furunumi '985 and Handy Text references, and the Examiner has still not stated a valid motivation to combine these references to arrive at the claimed combination.

This rejection is clearly built on an improper hindsight reconstruction of the claims, as evidenced by the Examiner's Answer at page 16, lines 5-6. Reversal of the obviousness rejection of claims 1 and 25 is accordingly solicited.

In view of the foregoing, favorable action upon the appealed application by the Board is respectfully requested.

Respectfully submitted,

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